

REMARKS

As the Examiner correctly indicated in the Office Action, the present application currently includes claims 1-6, 37-38 and 42-47. Following the present response, claim 2 has been cancelled such that claims 1, 3-6, 37-38 and 42-47 remain pending in the application. Claims 7-36 and 48-67 remain in the application as being directed to a non-elected species of the invention. However, these claims are believed to be properly included in the application and allowable based upon the allowability of generic independent claims 1 and 42 for the reasons to be set forth below, as well as in view of the claim amendments to each of these claims.

In the Office Action, the Examiner rejected claims 1-4 and 6 under 35 USC §102(b) as being anticipated by the Ehlers U.S. Patent No. 5,572,438. Claim 5 was rejected under §103(a) as being unpatentable over the Ehlers '438 reference. Claims 37-38 and 42-47 were also rejected under §103(a) as being unpatentable over the Ehlers '438 reference.

Reconsideration of the above claim rejections is respectfully requested in view of the foregoing claim amendments, as well as the following arguments for allowance.

Claims 1, 3-6

By the present response, independent claim 1 has been amended to more clearly define the method of the present invention. Specifically, independent claim 1 has been generally amended to incorporate the subject matter of now cancelled claim 2 and clarify the subject matter being claimed by the applicant.

As amended, claim 1 is directed to a method of providing at least one energy management program to a utility of a commodity such that the utility of the commodity can manage demand for the commodity through the energy management program. As required by claim 1, an energy management program is defined at the utility having a subset of a plurality of devices for which usage of the commodity may

be managed. Management of the commodity usage typically includes a reduction in the amount of the commodity being consumed by the plurality of devices.

As further required by claim 1, the method measures the instantaneous rate at which the commodity is being delivered to each device of the subset of devices. The instantaneous rate of commodity consumption for each of the devices is sent to the utility such that the utility can determine, in real time, a capacity of energy consumption that may be managed by activating the energy management program. As required by claim 1, the capacity of the commodity that can be managed is determined based upon the instantaneous rate at which the commodity is being delivered to the plurality of devices. The determination of the capacity of the commodity that can be managed allows the utility to determine, in real time, the amount of capacity that can be managed if the utility selectively activates the energy management program.

Claim 1 further requires that after the utility activates the energy management program, the utility can determine either the rate or a change in the rate at which the commodity is being delivered to each device of the subset of devices. The ability of the utility to measure either the rate or a change in the rate at which the commodity is being delivered to the subset of devices allows the utility to verify that the activation of the energy management program has had the desired effect of reducing the consumption of the commodity.

As set forth above, by utilizing the method of independent claim 1, the utility is able to determine, in real time, a capacity of the commodity that can be managed by the utility by activating the energy management program. Once the utility activates the energy management program to manage the usage of the commodity, the utility measures at least one of a rate and a change in the rate at which the commodity is being delivered to the subset of devices. In this manner, the utility is able to not only activate a program to reduce commodity consumption, but the utility can determine the rate and the change in rate of the consumption after the program has been activated.

In rejecting original claim 1 and 2, the Examiner relied solely upon the Ehlers '438 reference under §102(b). In rejecting claim 1, the Examiner stated that the Ehlers '438 reference taught the step of defining a program at the utility having a subset of the plurality of devices for which usage of the commodity may be managed by activating the program. However, the Ehlers '438 reference provides no teaching of defining an energy management program at the utility where the energy management program has a subset of the plurality of devices for which usage of the commodity may be managed. In citing the Ehlers '438 reference, the Examiner referred to portions of the patent text that speak to computer programs executed on microprocessors of the systems shown in the drawing figures. However, the computer programs specifically identified by the Ehlers '438 reference do not correspond to the energy management program required by claim 1. Instead, the energy management program required by claim 1 allows the utility to manage the consumption of a commodity based upon activation of the energy management program. The energy management program required by claim 1 is thus not taught or suggested, nor rendered obvious by the Ehlers '438 reference.

Independent claim 1 further requires the measurement of the instantaneous rate at which the commodity is being delivered to each device of the subset of the devices and sending the instantaneous rate for each device within the subset to the utility. The Ehlers '438 reference does not teach or suggest, nor render obvious, the step of measuring the instantaneous rate at which the commodity is being delivered to each device of the subset and sending the instantaneous rate for each device to the utility in real time. Instead, the Ehlers '438 reference teaches the ability of the first microcomputer 18 to communicate with the power company via a suitable communication interface to receive real-time energy rate broadcasts, load shedding requests and the like and to send to the utility company power outage reports, low voltage condition reports, customer usage reports and selected other data. (Col. 15, lines 5-10.) However, in col. 28, lines 55-65, the system is defined as allowing energy

consumption information to be sent from the customer premise to the utility company where the forwarding operation can be initiated by the customer or by the utility company. The consumption information is date and time stamped to facilitate time of day and other variable rate billing operations. The Ehlers '438 reference does not provide any teaching or suggestion of sending instantaneous rates of commodity consumption to the utility, as required by independent claim 1. Thus, the Ehlers '438 reference does not teach or suggest, nor render obvious, this element of independent claim 1.

As amended, independent claim 1 requires the step of determining at the utility, in real time, a capacity associated with the delivery of the commodity that may be available for management by activating the energy management program. This capacity is determined by the instantaneous rate of the commodity being delivered to the plurality of devices. Nothing in the Ehlers '438 reference teaches the step of determining, at the utility, in real time, a capacity associated with the delivery of the commodity to the subset of devices that may be available for management by activating the program. The portion of the patent specification relied upon by the Examiner does not provide any teaching or suggestion along these lines. Further, the entire specification of the '438 reference does not provide any teaching or suggestion of the utility determining a capacity that may be managed by activating the energy management program.

Finally, independent claim 1 requires the step of measuring at least one of a rate and a change in the rate at which the commodity is being delivered to the subset of devices following the activation of the program. This ability allows the utility to determine, in real time, whether the activation of the energy management program has had the desired effect, namely, reducing the amount of commodity being consumed. Nothing in the Ehlers '438 patent provides any teaching or suggestion along these lines.

Although col. 15, lines 5-10 of the Ehlers '438 reference teach that the communication between the utility and the user site allows the user site to receive real-time energy rate broadcasts, load shedding requests and the like, there is no teaching or suggestion of monitoring the change in the rate of commodity consumption following the activation of an energy management program. Nothing in the Ehlers '438 patent provides any teaching or suggestion along these lines.

Based upon all of the above distinctions, amended independent claim 1 is believed to be allowable over the Ehlers '438 reference cited by the Examiner in the Office Action.

Claims 3-6 depend directly or indirectly from claim 1 and are thus believed to be allowable based upon the above arguments for allowance as well as in view of the subject matter of each claim. Further, claims 7-36 are directed to non-elected species of the invention, which are now believed to be properly included in the application based upon the allowability of generic independent claim 1.

Independent Claim 37

By the present response, independent claim 37 has been amended to more specifically define the method for providing at least one energy management program to a utility of a commodity where the energy management program is aimed at managing demand for the commodity. Independent claim 37 includes many of the same limitations described above in the arguments for allowance of independent claim 1. For at least the same reasons, independent claim 37 is believed to be allowable over the Ehlers '438 reference relied upon by the Examiner in rejecting the claim under §103(a).

In addition to the similarities with claim 1, independent claim 37 includes the step of determining, in real time, an actual capacity of the commodity managed following activation of the energy management program and, based upon the determined actual capacity of the commodity managed, providing at least one of an

alternative rate and a billing adjustment to at least one customer as a function of the actual capacity managed at the related customer site. These steps of independent claim 37 are not shown or taught by the teaching of the Ehlers '438 reference.

The ability of the utility to determine the amount of capacity of the commodity managed following activation of the energy management program and the subsequent provision of either an alternate rate or a billing adjustment to a customer as a function of the actual capacity managed allows the utility to reward those customers that actively participated in the energy management program by having the capacity of commodity being consumed by the device at the customer site managed. There is no teaching or suggestion in the Ehlers '438 reference of determining the actual capacity of the commodity managed and providing either an alternate rate or billing adjustment to the customer as a function of the actual capacity. For at least these reasons, independent claim 37 is believed to be allowable over the Ehlers '438 reference.

Independent Claim 38

By the present response, independent claim 38 has been amended to more specifically define the method of providing the energy management program to the utility such that the utility can manage demand for the commodity by activating the energy management program. Independent claim 38 includes many of the same limitations discussed in detail above in the arguments for allowance of independent claim 1. For at least these reasons, independent claim 38 is believed to be allowable over the Ehlers '438 reference.

In addition to the common limitations with claim 1, independent claim 38 also requires the step of determining the reduction in the amount of commodity being consumed and verifying the management of the devices within the subset of the devices based upon the actual consumption of the commodity by each of the devices following activation of the energy management program. This limitation allows the utility to verify, after activation of the energy management program, whether the

energy management program had the desired effect of modifying the actual consumption of the commodity. This ability allows the utility to determine whether the activation of the program was successful in managing the amount of commodity being used by the devices of the energy management program. Nothing in the Ehlers '438 reference provides any teaching or suggestion of this limitation required by claim 38. For at least these reasons, independent claim 38 is believed to be allowable over the Ehlers '438 reference cited by the Examiner.

Claims 42-47

By the present response, independent claim 42 has been amended to more clearly indicate that the control system is operable for controlling the delivery of the commodity and determining, in real time, a capacity associated with the delivery of the commodity that may be available for management by activating the energy management program as a function of the measured instantaneous rate. As described above in the arguments for allowance of independent claim 1, the Ehlers '438 reference does not provide any teaching or suggestion of determining a capacity that may be managed by activating the energy management program as a function of the measured instantaneous rate. The instantaneous rate is delivered to the control system such that the control system can determine, in real time, the capacity that can be managed by activating the energy management program. Nothing in the Ehlers '438 reference provides any teaching or suggestion of this type of system that determines capacity in real time based upon instantaneous rates of commodity consumption by the subset of the devices.

For these reasons, independent claim 42 is believed to be allowable over the Ehlers '438 reference.

Dependent claims 43-47 depend directly or indirectly from claim 42 and are thus believed to be allowable based upon the above arguments, as well as in view of the subject matter of each claim. Further, claims 48-67 also depend upon allowable

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claim 42 and, since these claims are based upon an allowable generic claim, it is requested that these claim also be allowed in the present application.

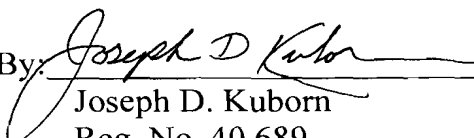
Conclusion

Based upon the above arguments for allowance, independent claims 1, 37, 38 and 42 are believed to be in condition for allowance. Based upon the allowability of these independent claims, dependent claim 3-6 and 43-47 are also believed to be allowable. Further, since generic claims 1 and 42 are believed to be in condition for allowance, it is believed that non-elected claims 7-36 and 48-67 are also properly included in the present application.

The Examiner is invited to contact the applicant's undersigned attorney with any questions or comments, or to otherwise facilitate prosecution of the present application.

Respectfully submitted,

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